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EXAMINER	
TRAN, TRANG U	

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/163,977	PARK, JU-HA	
	Examiner	Art Unit	
	Trang U. Tran	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-27 and 37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-27 and 37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 04, 2006 have been fully considered but they are not persuasive.

In re page 8, applicant argues, using independent claim 12 as an example, that the applied reference does not teach program guide information of the channel currently tuned into because col. 8, lines 11-28 of Mankovitz discloses "allows the viewer to tune and display channels from one television signal source while the VCR scans the other television signal source for guide information".

In response, the examiner respectfully disagrees. It is noted that the "guide information" of Mankovitz is the guide information of all television programs of all channels of all television signal sources. Thus, the guide information of Mankovitz would include program guide information of a channel currently tuned into. Mankovitz does indeed disclose the claimed program guide information of the channel currently tuned into.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 3-10, 12-15, 19-23, 27 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1) in view of Mankovitz et al. (US Patent No. 6,341,195 B1).

In considering claim 3, Cuccia discloses all claimed subject matter, note 1) the claimed acquiring program guide information of accessible channels, in response to the program guide command, wherein the program guide information is acquired according to a prioritized or preferential channel search is met by the micro processor 118 (Figs. 1, col. 3, line 55 to col. 4, line 63), 2) the claimed storing the acquired program guide information is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 3) the claimed writing a program list on the basis of the stored program guide information is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 4) the claimed displaying the written program list to the user in response to the program guide command is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65).

However, Cuccia explicitly does not disclose the limitations acquiring program guide information of accessible channels including a channel currently tuned into, a preferential channel, and remaining channels, being broadcast.

Mankovitz et al teach the viewer tunes and view television channels from on television signal source while the VCR 740 scans the other television signal sources for guide information (col. 8, lines 10-13). The controller switches the output of a viewer selected signal source, e.g., the cable box 730, to tuner switch output B for direct routing to the television 14, the controller then switches

between the outputs of the remaining television signal sources, i.e., antenna 782 and satellite receiver 735 at tuner switch output A. The controller scans through the signals of one signal source output from tuner switch output A and then switches to the other signal source, scanning through the signals of that source also (col. 8, lines 13-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate automatically checked for EPG information using the second tuner as taught by Mankovitz et al into Cuccia's system in order to provide a method for immediately updating the EPG information about all the channels of the digital TV set based on the latest correct EPG information.

In considering claim 4, the combination of Cuccia and Mankovitz et al discloses all features of the instant invention as discussed in claim 3 above, except providing the claimed a message indicating that the user must wait until the program list is written. However, the capability of displaying message indicated the user must wait until the program is written is well known and old in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the combination of Cuccia and Mankovitz et al's system with the well known message in order to increase the efficiency system operation in the combination of Cuccia and Mankovitz et al.

In considering claim 5, the claimed further comprising determining whether the program guide information is effective by comparing a current time to an effective period of stored program guide information and proceeding to said

writing the program list when the stored program guide information is effective, before said acquiring the program guide information is met by the timer 119 or the flow chart of Fig. 2 (Figs. 1 and 2, col. 4, lines 36-55 and col. 5, lines 20-57 of Cuccia).

In considering claim 6, Cuccia discloses all claimed subject matter, note 1) the claimed writing and displaying a program list including the program guide information of channels tuned before a program guide command is executed from the stored program guide information is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65), 2) the claimed acquiring the program guide information for each channel by searching for the accessible channels in a background operation while the program list is referred to is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19 of Cuccia).

In considering claim 7, the claimed said acquiring the program guide information comprises determining the sequence of accessing channels by proximity of channels to the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65 of Cuccia).

In considering claim 8, the claimed said acquiring the program guide information comprises determining the order of priority of channels having the same proximity to the channel tuned before the program guide command is

executed according to a channel up/down command input before corresponding channels are accessed is met by the remote control unit 110 and the compound EPG (Fig. 1, col. 5, lines 1-65 of Cuccia).

In considering claim 9, the claimed wherein an upward or downward direction is preferential when no channel up/down command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65 of Cuccia).

In considering claim 10, the claimed said acquiring the program guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65 of Cuccia).

Claim 12 is rejected for the same reason as discussed in claims 3 and 6 and further the claimed rewriting a program list on the basis of the stored program guide information is met by the TV-set updates the EPG information (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65), 5) the claimed displaying the rewritten program list to a user is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65 of Cuccia).

Claims 13-16 are rejected for the same reason as discussed in claims 7-10, respectively.

In considering claim 19, Cuccia discloses all claimed subject matter, note 1) the claimed a tuner tuning a currently tuned in channel is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode (Fig. 1, col. 4, line 11 to col. 5, line 19), 2) the claimed a program guide information detector detecting program guide information for the currently tuned in channel introduced via said tuner is met by the micro processor 118 (Fig. 1, col. 3, line 55 to col. 4, line 63), 3) the claimed a memory storing the program guide information for each channel detected by said program guide information detector is met by the digital memory 120 (Fig. 1, col. 3, line 55 to col. 4, line 63), 4) the claimed a key input introducing a user manipulation command such as a program guide command or a channel search command is met by the remote control unit 110 and the compound EPG (Fig. 1, col. 5, lines 1-65), 5) the claimed a microprocessor, in response to the manipulation command input via said key input, that writes a program list based on program guide information stored in said memory and searches for accessible channels by controlling said tuner in a background operation while a user refers to the program list is met by the micro processor 118 (Fig. 1, col. 3, line 55 to col. 5, line 19), 6) the claimed a character signal generator generating a character signal corresponding to the program list written by said microprocessor and providing the character signal to a screen is met by the television screen 108 and the compound EPG (col. 3, lines 55-64 and col. 5, lines 58-65).

However, Cuccia explicitly does not disclose the claimed a microprocessor searches for remaining accessible channels to obtain program guide information

being broadcast for the remaining accessible channels by controlling said tuner in a background operation while a user refers to the program list.

Mankovitz et al teach the viewer tunes and view television channels from on television signal source while the VCR 740 scans the other television signal sources for guide information (col. 8, lines 10-13). The controller switches the output of a viewer selected signal source, e.g., the cable box 730, to tuner switch output B for direct routing to the television 14, the controller then switches between the outputs of the remaining television signal sources, i.e., antenna 782 and satellite receiver 735 at tuner switch output A. The controller scans through the signals of one signal source output from tuner switch output A and then switches to the other signal source, scanning through the signals of that source also (col. 8, lines 13-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate automatically checked for EPG information using the second tuner as taught by Mankovitz et al into Cuccia's system in order to provide a method for immediately updating the EPG information about all the channels of the digital TV set based on the latest correct EPG information.

Claims 20-23 are rejected for the same reason as discussed in claims 7-10, respectively.

In considering claim 27, the claimed wherein said acquiring the program guide information comprises the step of determining the sequence of accessing channels by proximity of the channels to the channel tuned and by a channel

up/down command input just before a channel search is determined is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65 of Cuccia).

In considering claim 37, the claimed wherein the program guide information is shown on the screen while the program guide information is acquired by the multichannel receiver is met by the on-screen guides disclosed in col. 7, lines 54-62 and scanning the television sources for guide information while viewer tunes and displays channels from other television signal source disclosed in col. 8, lines 11-28 of Mankovitz et al.

4. Claims 11, 16-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1) in view of Mankovitz et al (US Patent No. 6,341,195 B1) and further in view of Saitoh (US Patent 5,444,499).

In considering claim 11, the combination of Cuccia and Mankovitz et al discloses all the features of the instant invention except for providing further comprising writing a probability distribution of tuned channels, wherein said acquiring the program guide information comprises searching the channels in an order of priority according to a probability distribution of channels. Saitoh teaches that the controller can calculates a probability that channels are to be selected, by accumulating a number of time which the channels are tuned (col. 5, lines 46-62) and searches for the channels in an order of priority according to a probability of tuning by the channels calculated (col. 6, lines 15-38). It would have been

obvious to one of ordinary skill in the art at the time of the invention to provide the combination of Cuccia and Mankovitz et al's system with the controller as taught in Saitoh in order to obtain the television guide without carrying out cumbersome tuning operations.

In consider claim 16, the claimed wherein said acquiring the guide information comprises searching channels upward or downward from the channel tuned before the program guide command is executed is met by the tuner 103 which is free to scan the signals for the EPG information when the TV-set in stand-by mode and the compound EPG (Fig. 1, col. 4, line 11 to col. 5, line 19 and col. 5, lines 58-65 of Cuccia).

In consider claim 17, the claimed further comprising writing a probability distribution of tuned channels, and wherein the channels are search for in order of priority according to the probability distribution of channels is met by the search of channels base on the priority disclosed in Saitoh, column 6, lines 15-38.

Claim 24 is rejected for the same reason as discussed in claim 11.

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mankovitz et al (US 6,341,195 B1) in view of Cuccia (US Patent No. 6,337,719 B1).

In considering claim 26, Mankovitz et al discloses all features of the instant invention as discussed in claim 1 above, except providing the claimed wherein the accessible channels include channels accessed by channels provided by a line input. Cuccia teaches that when the tuner it would have been

obvious to one of ordinary skill in the art at the time of the invention to incorporate is not used, i.e., the TV set is in stand-by mode or the signal processor 104 is occupied with processing signals from the signal inputs 117 (Fig. 1, col. 4, lines 10-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the line input as taught by Cuccia into Mankovitz et al's system in order to provide a receiving apparatus which provides the user with compound information, composed from information incorporated in multiple signals.

6. Claims 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuccia (US Patent No. 6,337,719 B1) in view of Mankovitz et al (US Patent No. 6,341,195 B1), and further in view of Mugura et al. (US Patent No. 6,243,142 B1).

In consider claim 18, the combination of Cuccia and Mankovitz et al discloses all the limitations of the instant invention as discussed in claims 3 and 12 above, except for providing the claimed wherein said displaying the written program list comprises displaying a message indicating a status of program guide information in response to the program guide information of a corresponding channel not being stored. Mugura et al teach that the broadcast system generates at least one graphic image to indicate a status of these programs, the status including whether a user has selected pay-per-view broadcasts for purchase. The status also includes whether a broadcast system timer has been set to tune to a particular channel program at a designed time, whether a channel program has been set for recording, etc. (col. 2, lines 20-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the graphic image to indicate a status of programs as taught by Mugura et al into the combination of Cuccia and Mankovitz et al's system in order to provide channel selection guides with many options regarding programs that are available for broadcast.

Claim 25 is rejected for the same reason as discussed in claim 18.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 8:00 AM - 5:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 09, 2006

Trang U. Tran
Examiner
Art Unit 2622